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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/788,420	02/21/2001	Oh Nam Kwon	8733.388.00	5851
30827	7590	12/28/2004	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006				WANG, GEORGE Y
		ART UNIT		PAPER NUMBER
				2871

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/788,420	KWON ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	George Y. Wang	2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 13 October 2004.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-9 and 11-26 is/are pending in the application.  
4a) Of the above claim(s) 11-26 is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-9 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 21 February 2001 is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date .

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: .

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Wakai et al. (U.S. Patent No. 5,055,899, from hereinafter “Wakai”).
3. As to claim 1, Wakai discloses a liquid crystal display (LCD) device having a substrate (fig. 8, ref. 101), a first conductive layer (fig. 8, ref. 102) on the substrate, a first insulating layer (fig. 8, ref. 103) on the first conductive layer, a semiconductor layer on the first semiconductor layer (fig. 8, ref. 104), a second conductive layer (“ohmic contact,” abstract) on the first insulating layer, a third conductive layer (fig. 8, ref. 106a, 107a) on the second conductive layer, a second insulating layer (fig. 8, ref. 118) on the third conductive layer, the second insulating layer having a hole (fig. 8, ref. 105) exposing a portion of the third conductive layer, a fourth conductive layer (fig. 8, ref. 110) on the second insulating layer and electrically contacting the third conductive layer, and a fifth conductive layer (fig. 8, ref. 106b, 107b) between the third and fourth conductive layers.

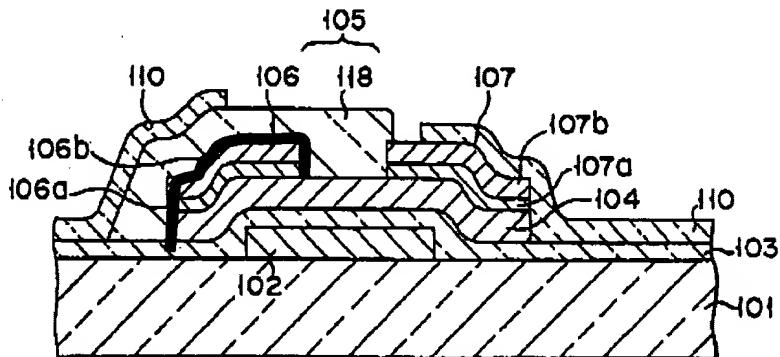
4. Regarding claims 2-3, Wakai discloses an LCD device as recited above where the first conductive layer includes aluminum metal (col. 14, line 47-50).
5. As per claim 4, Wakai discloses an LCD device as recited above where the second conductive layer includes an impurity-doped semiconductor (col. 4, lines 34-43).
6. As to claims 5-6, Wakai discloses an LCD device as recited above where the third conductive layer has a first and second parts that include metal (col. 5, lines 49-57) and in between the first and second parts is where the semiconductor is etched (fig. 8, ref. 104; col. 5, lines 49-52).
7. Regarding claim 7, Wakai discloses an LCD device as recited above where the fourth conductive layer includes a transparent electrode (col. 4, lines 56-59).
8. As to claims 8-9, Wakai discloses an LCD device as recited above where the fifth conductive layer includes conductive metal such as Cr (col. 4, lines 40-43).

***Response to Arguments***

9. Applicant's arguments filed October 13, 2004 have been fully considered but they are not persuasive.

Applicant has amended independent claim 1 to include a new limitation, "a semiconductor layer on the first insulating layer." Applicant's main argument is that the prior art of record "does not disclose or suggest this semiconductor layer." However, Examiner disagrees. The Wakai reference clearly teaches a semiconductor layer on the first insulating layer (fig. 4f, ref. 104).

In addition, Applicant continues to argue that the second insulating layer of the Wakai reference does not teach "a contact hole exposing a portion of the third conductive layer." However, Applicant has failed to respond to Examiner's remarks in the previous Office Action regarding this limitation. Therefore, Examiner asserts again that the Wakai reference clearly teaches this limitation in Fig. 8. See bolded area below.



**F I G. 8**

Therefore, Examiner holds to the validity of the prior art references and maintains rejection.

***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Y. Wang whose telephone number is 571-272-2304. The examiner can normally be reached on M-F, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gw  
December 20, 2004



TARIFUR R. CHOWDHURY  
PRIMARY EXAMINER